

## NDNC2020/2021 Poster Presentation Schedule

2021.06.03

<b>AM-7 June 2021</b>	
7A-01	<b>Development of Fabrication Process for High Purity Single Crystal Diamond with Large Area</b> M. Furuhashi, N. Fujimori (EDP Corporation, Japan)
7A-02	<b>Observation of High Conductivity and Insulator-to-Metal Transition in n-type Nitrogen Implanted Diamond Thin Films.</b> D. Das, M. S. R. Rao (Department of Physics, IIT Madras, India)
7A-03	<b>Growth and characterization of single crystal (001) and (111) diamond on Ir/sapphire structure using chemical vapor deposition</b> U. Choi, H. Shin, G. Yoo, T. Kwak, B. So, S. Kim, O. Nam (Korea Polytechnic University, Korea)
7A-04	<b>On the Mechanism of Nanodiamond Formation during Detonation Synthesis Using Time-Resolved Optical Emission Spectroscopy</b> Y. Makino, S. Tanaka, T. Mahiko, T. Kouuchi, K. Kusakabe, K. Hokamoto, M. Ashida (Daicel Corporation, Japan)
7A-05	<b>Evolution Mechanism of Growth Characteristics near the Junction in the Mosaic Diamond</b> H. X Zhu, L. J. Liu, W. S. Shao, T. Y. Zheng, P. J. Tu, X. L. Chen, J. J. Wei, M. C. Li (University of Science and Technology Beijing, China)
7A-06	<b>Performances of Single Crystal and Polycrystalline Diamonds for Small Angle X-Ray Scattering Window</b> J. Tu, J. Liu, L. Yao (University of Science and Technology Beijing, China)
7A-08	<b>Phonon Broadening Effect on the Excitonic Luminescence in Intrinsic Diamond</b> R. Toda, K. Konishi, D. E. P. Vanpoucke, N. Naka (Kyoto University, Japan)
7A-09	<b>Characterization of B-doped polycrystalline diamond for radiation detection</b> T. Miyake, T. Masuzawa, H. Nakagawa, T. Yamada, T. Aoki, H. Mimura (Shizuoka University, Japan)
7A-10	<b>Dislocation type identification of Band A in diamond epitaxial film</b> K. Miyajima, K. Ichikawa, T. Teraji, S. Shikata (Kwansei Gakuin Univ. , Japan)
7A-11	<b>2DHG Hydrogenated Diamond MOSFET Device Model Simulated Normally-off Operation using Fixed Positive Surface Charge Sheet and Nitrogen Doping</b> R. M. Alhasani, T. Yabe, N. Quang, M. Alhasani, H. Kawarada (Waseda University, Japan)
7A-12	<b>Radiation effect of X-ray on the electrical properties of MESFET based on hydrogen-terminated diamond surface conductivity</b> M. Yang, T. Shimaoka, Y. Koide, H. Li, J. Kaneko, M. Liao, S. Koizumi (National Institute for Materials Science, Japan)
7A-13	<b>Carrier Transport Mechanism of Diamond p<sup>+</sup>-n Junction at Low Temperature by Using Schottky-pn Junction Structure</b> A. Karasawa, T. Makino, A. Traore, H. Kato, M. Ogura, Y. Kato, D. Takeuchi, S. Yamasaki, T. Sakurai (University of Tsukuba, Japan)
7A-14	<b>An AlO<sub>x</sub>/TiO<sub>y</sub> nanolaminate on hydrogenated diamond for metal-oxide-semiconductor electronic devices</b> J. Liu, O. Auciello, E. de Obaldia, B. Da, Y. Koide (National Institute for Materials Science, Japan)

## AM-7 June 2021

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- 7A-15 **Enhanced transconductance of diamond MESFETs with extended gate width above 30 nm**  
H. Kawashima, H. Umezawa, S. Ohmagari, D. Takeuchi, H. Yamada (Advanced Power Electronics Research Center, AIST, Japan)
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- 7A-16 **Study of pseudo normally-off operation of diamond FET using remnant polarization of ferroelectric gate structure**  
T. Tamamura, T. Yamada, T. Matsumoto, T. Nakajima, N. Tokuda, T. Kawae (College of Sci. and Eng., Kanazawa Univ., Japan)
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- 7A-17 **Optical Constants of DLC Films Formed by GCIB-assisted Deposition**  
R. Miyamoto, A. Nishiyama, R. Yoshikawa, J. Taguchi, K. Komatsu, H. Saitoh (Nagaoka University of Technology, Japan)
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- 7A-18 **Nitrogen containing effect on DLC film structure for biological response**  
F. Qamarina, Y. Ohgoe, N. Miyata, T. Miyazaki, T. Yaguchi, A. Homma, K. Hirakuri (Tokyo Denki University, Japan)
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- 7A-19 **Deposition Phenomena Investigation of DLC Films on Inner Walls of Circular Metal Tubes by Nanopulse Plasma CVD**  
Y. Iwamoto, Y. Hirata, M. Nakagawa, R. Takamura, H. Akasaka, N. Ohtake (Tokyo Institute of Technology, Japan)
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- 7A-20 **Fabrication of DLC Films by Pulse-Arc-Plasma Jet Centrally Introduced with Carbon Source Gas**  
T. Harigai, R. Tominaga, H. Takikawa, S. Kunitzugu, S. Kaneko, H. Gonda, M. Kamiya (Toyoashi University of Technology, Japan)
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- 7A-21 **Nanosecond pulsed laser treatments of diamond like carbon, nanodiamond composite and singlecrystalline diamond**  
A. Z. Ahmed, E. N. Abubakr, M. B. Egiza, A. Haque, J. Narayan, T. Yoshitake (Kyushu University, Japan)
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- 7A-22 **Spatially controlled the growth of gold decorated carbon nanotubes on a porous membrane and its unique catalytic activity**  
F. W. Ahmad Zulkifli, H. Yazid, A. M. Md Jani (Universiti Teknologi MARA, Malaysia)
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- 7A-23 **Preparation of Carbide-derived Carbon from SiC Nanoparticles by Annealing in Vacuum**  
R. Inaba, S. Momozono, Y. Aono, A. Hirata (Tokyo Institute of Technology, Japan)
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- 7A-24 **In-situ X-ray diffraction study on structural changes of neutron-irradiated highly oriented pyrolytic graphite under room- temperature compression and decompression**  
S. Nakamura, M. Ichikawa, S. Fujii, S. Honda, M. Terasawa, Y. Higo, K. Niwase (Univ.of Hyogo, Japan)
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- 7A-25 **The Property of Adhesion and Biocompatibility of Silicon and Fluorine Doped Amorphous Carbon Films**  
M. Toyonaga, T. Hasebe, S. Maegawa, T. Matsumoto, A. Hotta, T. Suzuki (Keio University, Japan)
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- 7A-26 **Improvement of Adhesion between NiTi alloy and Diamond-like carbon Film by Bayesian Optimization**  
M. Toyonaga, T. Hasebe, S. Maegawa, T. Matsumoto, A. Hotta, T. Suzuki (Keio University, Japan)
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## PM-7 June 2021

- 7P-01 **Methane effect on phosphorus doped single crystal diamond growth over (100)-oriented substrates**  
F. Lloret, R. Rouzbahani, D. Araujo, F. Donatini, K. Haenen (Dept. Física Aplicada, Universidad de Cádiz, Spain)
- 7P-02 **Control of Nanodiamond Particle Size in Detonation Process**  
A. Tsurui, T. Mahiko, M. Liu, Y. Makino, M. Nishikawa (Daicel Corporation, Japan)
- 7P-03 **The new microwave plasma CVD system with ellipsoid chamber**  
Y. Kojima, K. Mori, O. Ariyada, N. Tokuda (Arios Incorporated, Japan)
- 7P-04 **The Study Of Detonation Nanodiamonds Particles Self-Organization And Reorganization Under External Stimuli**  
N. M. Kuznetsov, A. Y. Vdovichenko, V. G. Shevchenko, S. I. Belousov, S. N. Chvalun, A. V. Shvidchenko, E. B. Yudina, A. Y. Vul' (National Research Center "Kurchatov Institute", Russia)
- 7P-05 **Multi-approach Size Distribution Characterization and Raman Spectroscopy of Quantum-sized Nanodiamonds**  
S. Stehlik, M. Mermoux, D. Miliáieva, R. Pfeifer, O. Vanek, B. Schummer, A. Kromka, B. Rezek (Institute of Physics of the Czech Academy of Sciences, Czech Republic)
- 7P-06 **Fine structure of boron-bound excitons in diamond studied by high-resolution spectroscopy**  
S. Takahashi, K. Konishi, Y. Kubo, R. Issaoui, J. Barjon, N. Naka (Department of Physics, Kyoto University, Japan)
- 7P-07 **Investigation of valley pseudospin in single-crystalline diamond**  
N. Suntornwipat, S. Majdi, V. Djurberg, M. Gabrysch, A. Aitkulova, J. Isberg (Uppsala University, Sweden)
- 7P-08 **Simulations for Optimisation of a Diamond-Based Beta Radiation Detector**  
S. E. Osbourne, N. A. Fox, T. B. Scott (University of Bristol, United Kingdom)
- 7P-09 **Charge Transport and Detrapping Effects Studied at Elevated Temperatures in Synthetic Diamond Detector Using Ion Beam Techniques**  
A. Crnjac, M. R. Ramos, N. Skukan, M. Jakšić (Ruđer Bošković Institute, Croatia)
- 7P-10 **Additive manufactured Titanium-Diamond conductive surfaces for medical applications using laser metal deposition.**  
N. Mani, A. Ahnood, D. Peng, W. Tong, M. Booth, A. Jones, B. Murdoch, N. Tran, S. Houshyar, K. Fox, Peter Sherrell (School of Engineering, RMIT University, Australia)
- 7P-11 **Novel Uniformly Modified Organic Surface of Diamond Particles having Reactive Sites in Large Quantities by a Simple Treatment**  
T. Goto, R. Nitta, K. Aoki, T. Nukui, T. Takahashi (Yamagata University, Japan)
- 7P-12 **Scaling properties of the Boltzmann transport equation for identification of scattering mechanisms.**  
V. Djurberg, S. Majdi, N. Suntornwipat, M. Gabrysch, J. Isberg (Uppsala University, Sweden)
- 7P-13 **All-ion-implanted Diamond Schottky Barrier Diodes**  
T. Oishi, S. Sigematsu, Y. Seki, Y. Hoshino, J. Nakata, M. Kasu (Saga University, Japan)
- 7P-14 **Nanodiamond Based Polymer Composite for Flat Electron Emitters**  
P. V. Lebedev-Stepanov, A. T. Dideikin, S. N. Chvalun, A. L. Vasiliev, A. Y. Vul' (Federal Research Center "Crystallography and Photonics," RAS, Russia)
- 7P-15 **Elucidation of Methane Concentration Dependent Boron Incorporation in Single Crystal Diamond-based Schottky Barrier Diodes**  
R. Rouzbahani, F. Lloret, D. E. P. Vanpoucke, J. Letellier, F. Donatini, D. Eon, D. Araujo, J. Pernot, K. Haenen (Institute for Materials Research, Hasselt University, and IMOME, IMEC, Belgium)
- 7P-16 **Influence of dislocations on diamond schottky barrier diode characteristics**  
N. Mikata, M. Takeuchi, K. Ichikawa, T. Teraji, S. Shikata (Kwansei Gakuin Univ., Japan)

## PM-7 June 2021

- 7P-17 **Normally-Off Polycrystalline H-diamond MISFETs with MgF<sub>2</sub> Gate Insulator and Passivation**  
Q. He, J. F. Zhang, Z.Y. Ren, J. C. Zhang, K. Su, Y. Y. Lei, D. D. Lv, Y. Hao (XIDIAN UNIVERSITY, China)
- 7P-18 **Prediction of Detonation Nanodiamonds Yield Depending on the Properties of Explosives**  
V. Y. Dolmatov, A. N. Ozerin, A. O. Dorokhov, A. S. Kozlov, V. A. Marchukov, A. Vehanen, V. Myllymäki, A. T. Dideikin, A. P. Meilakhs, A. Y. Vul (Special Design and Technology Bureau "Technolog", Russia)
- 7P-20 **Angle dependent coating of biobased Polyhydlactide acid (PLA) with a-C:H layers-Confirming changed properties of the surface wettability**  
L. Beucher, T. Schlebrowski, S. Wehner, C. B. Fischer (University Koblenz-Landau, Germany)
- 7P-21 **Fabrication and Structural Analysis of a-CN<sub>x</sub>:H Films with High N/(N+C) Ratio Formed from the RF-Plasma CVD of the C<sub>6</sub>H<sub>6</sub>-N<sub>2</sub> Gas Mixture**  
H. Ito, Y. Karo, Y. Iizawa, H. Saitoh (Nagaoka University of technology, Japan)
- 7P-22 **Annealing Effects on the Properties of Hydrogenated Diamond-Like Carbon Films Doped with Silicon and Nitrogen**  
H. Nakazawa, K. Nakamura, H. Osanai, H. Koriyama, Y. Kobayashi, Y. Enta, Y. Suzuki, M. Suemitsu (Hiroasaki University, Japan)
- 7P-23 **Carbon Nanotubes Film Preparation on 3D Structured Silicon Substrates by Spray Coating Technique for Application in Solar Cells**  
J. Zhang (Peking University, China)
- 7P-24 **Modulation of electronic properties of graphene and relative 2D materials by ion beam irradiation**  
T. Hidaka, K. Nakamura, H. Yoshimoto, T. Nishimura, K. Takai (Graduate School of Science and Engineering, Hosei University, Japan)
- 7P-25 **Large-scale dispersion of long and isolated single-wall carbon nanotubes**  
S. Fujii, T. Nakanishi, S. Honda, Y. Oka, Y. Kuwahara, T. Saito (University of Hyogo, Japan)
- 7P-26 **Characterization of K-doped multilayer graphene by wet process**  
T. Yamada, Y. Okigawa, K. Hatakeyama, S. Ogawa, Y. Takakuwa, T. Masuzawa (AIST, Japan)
- 7P-27 **Nanostructured Carbon Compositions**  
A. M. Bubenchikov, M. A. Bubenchikov, D. V. Mamontov, A. S. Chelnokova, A. V. Lun-Fu (National Research Tomsk State University, Russia)
- 7P-28 **Synchrotron-based investigations the local structure of Zn doped Diamond-like carbon prepared by CVD and sputtering technique.**  
T. Chunajemsri, N. Chanlek, P. Kidkhunthod, H. Nakajima, S. Tunmee, P. Songsiritthigul, N. Chanlek, P. Kidkhunthod, R. Yimnirun, S. Rujirawat, N. Ohtake, H. Akasaka (Suranaree University of Technology, Thailand)

## AM-8 June 2021

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- 7A-07 **Polarized Raman spectroscopy of P doped diamond**  
M. Matsuoka, Y. Tsuchida, N. Ohtani, T. Yamada, S. Koizumi, S. Shikata (Kwansei Gakuin Univ., Japan)
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- 8A-01 **Homoepitaxial Diamond (100) Films Growth for Electronic Device Application**  
T. Teraji, K. Ichikawa (National Institute for Materials Science, Japan)
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- 8A-02 **Boron-doped single crystal diamond semiconductor growth on free-standing heteroepitaxial diamond substrate using MPCVD**  
T. Kwak, J. Lee, G. Yoo, B. So, U. Choi, S. Kim, O. Nam (Korea Polytechnic University, Republic of Korea)
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- 8A-03 **Effects of urea versus N<sub>2</sub> addition on growth and mechanical properties of HFCVD diamond films on WC-Co substrates**  
X. Wang, X. Song, Y. Qiao, K. Larsson, F. Sun (Shanghai Jiao Tong University, China)
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- 8A-04 **Mechanism of Diamond Heteroepitaxial Growth on a Sapphire Substrate**  
R. Takaya, S.W. Kim, Y. Kawamata, K. Koyama, M. Kasu (Saga University, Japan)
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- 8A-05 **Boron-doped Diamond SQUIDs with Miniaturized Josephson Junctions**  
Y. Takahashi, A. Morishita, S. Amano, T. Kageura, M. Tachiki, S. Ooi, S. Arisawa, Y. Takano, H. Kwarada (Waseda Univ., Japan)
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- 8A-06 **Nitrogen Concentration Control in Homoepitaxial Diamond Film**  
Y. Nakano, S. Ikeda, Y. Kamei, M. Nagai, X. Zhang, T. Matsumoto, T. Inokuma, S. Yamasaki, C. E. Nebel, N. Tokuda (Graduate School of Natural Science and Technology, Kanazawa University, Japan)
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- 8A-07 **Direct Printing of Low-Resistance Ohmic Contacts to p-type Diamond (100) Through Nanosecond Excimer Laser Irradiation**  
E. N. H. Abubakr, S. Ohmagari, A. Zkria, Y. Katamune, H. Ikenoue, T. Yoshitake (Kyushu University, Japan)
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- 8A-08 **Effects of liquid phase oxidation of Nanodiamond surface on water dispersibility and photo-absorption**  
T. Tsuji, K. Takai (Hosei university, Japan)
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- 8A-09 **Surface Recovery after Ga-Focused Ion Beam Irradiation on Diamond**  
K. Somu, K.N. Anjana, K.J. Sreelakshmy, T. Yamada, S. Shikata (IISER TVM, India)
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- 8A-10 **Three-Dimensional Raman Analysis of Single Crystal Diamond Cantilevers**  
X Shen, K. Ichikawa, Z. Huang, Y. Koide, M. Imura, S. Koizumi, M. Liao (National Institute for Materials Science, Japan)
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- 8A-11 **Polishing of Polycrystalline Diamond Films on WC-Co by KrF-Laser-Induced Surface Modification**  
Y. Katamune, K. Murasawa, T. Kikuchi, T. Yoshitake, H. Ikenoue (Kyushu Institute of Technology, Japan)
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- 8A-12 **Atomic step surface of diamond substrate fabricated by Chemical Mechanical Polishing (CMP)**  
K. Koyama, N. Fujita, S.W. Kim, M. Yoshimoto (Adamant Namiki Precision Jewel Co., Ltd., Japan)
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- 8A-13 **Mechanical and structural properties of Si doped nanodiamond composite coatings deposited on cemented carbide**  
H. Naragino, M. Egiza, H. Ohue, A. M. Ali, K. Murasawa, H. Sugita, Y. Fukui, H. Gonda, M. Sakurai, T. Yoshitake (Dept. of Appl. Sci. for Elec. & Mat., Kyushu University, Japan)
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- 8A-14 **Highly Nitrogen-Vacancy Doped Diamond Nanostructures Fabricated by Ion Implantation and Optimum Annealing**  
H. Sumikura, K. Hirama, K. Nishiguchi, A. Shinya, M. Notomi (NTT Basic Research Laboratories, Japan)
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- 8A-15 **Effect of Surface Treatment to the Optical Properties of Nitrogen-vacancy Containing Fluorescent Nanodiamond Particles**  
H. Wen, H.C. Chang, C. Dwyer, S.L.Y. Chang (Arizona State University, United States)
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## AM-8 June 2021

- 8A-16 **Modifications of Detonation Nanodiamonds for forming Nitrogen Vacancy Centers**  
M. Liu, M. Kishimoto, Y. Inamoto, T. Yoshikawa, M. Fujiwara, N. Mizuochi, M. Nishikawa (Daicel Corporation, Japan)
- 8A-17 **Nanometer-depth Low Energy Nitrogen Ions Implantation in Single Crystal Diamond for n-Type Diamond Doping and NV-Centers Formation**  
J. F. Veyan, E. de Obaldia, J. Henshaw, C. A. Meriles (University of Texas at Dallas, USA)
- 8A-18 **Grafting of Spin-Active Molecular Moieties to Diamond Surfaces**  
B. Bachman, Z. Jones, G. Jaffe, J. Salman, R. Raymond, Z. Yu, J. Choy, S Kolkowitz, M. Erikson, M. Kats, R. Hamers (University of Wisconsin-Madison Dept. of Chem., USA)
- 8A-19 **Selective Imaging and Detection of Chemically Functionalized NV-Nanodiamond in Organisms using Magnetically-Modulated Differential Imaging**  
R. J Hamers, Z. R. Jones, K. Zhang, M. Robinson, O. Shenderova, N. Niemuth, R. Klaper (University of Wisconsin-Madison, USA)
- 8A-20 **Constructing a thermoelectric measurement system by using nitrogen–vacancy center in nanodiamonds**  
K. Sugimoto, Y. Hijikata, M. Shimizu (Saitama University, Japan)
- 8A-21 **Antenna-integrated culture dishes for 10-mm-scale large-area detection of optically detected magnetic resonance of nanodiamond NV centers**  
K. Oshimi, Y. Nishimura, M. Tanaka, E. Shikoh, T. Matsubara, M. Fujiwara, Y. Teki (Graduate School of Science, Osaka City University, Japan)
- 8A-22 **Characterization and biological application of near-infrared fluorescence from Si- and Ni-related defects in HPHT diamond particles**  
P. Reineck, A. I. Shames, A. Abraham, A. D. Greentree, O. Shenderova, A. Zaitsev, A. Dalis, B. Gibson (RMIT University and Centre for Nanoscale Biophotonics, Australia)
- 8A-23 **Modification Process of Hydrogenated Si Containing DLC Films by Soft X-ray Irradiation**  
K. Kanda, S. Tanaka, S. Suzuki, M. Niibe, T. Hasegawa, T. Suzuki (University of Hyogo, Japan)
- 8A-24 **Influence of Fretting in Evaluation for Anti-adhesion Characteristics of DLC Film using SRV Tribotester**  
H. Mano, T. Ohana (National Institute of Advanced Industrial Science and Technology, Japan)
- 8A-25 **Graphene Growth On Non-Metallic Substrates By Chemical Vapor Deposition**  
S. M. Rodriguez, A. Instan, F. W. Mendoza, B. R. Weiner, R. Katiyar, G. Morell (Molecular Sciences Research Center, United States)
- 8A-26 **Enhanced Thermoelectric Performance of n-type Carbon Nanotube Sheets in Water System: Conjunctive Effect of Strong Organic Base and Poly(amidoamine) Dendrimer**  
S. Hata, Y. Yamaguchi, Y. Shiraishi, N. Toshima (Department of Applied Chemistry, Sanyo-Onoda City University, Japan)
- 8A-27 **Effect of Xe Plasma Processing on Characteristics of Carbon Nanotube Based Field Emission Cathode**  
R. Kikukawa, Y. Ohkawa, Y. Yamagiwa (Shizuoka University, Japan)
- 8A-28 **Wear Resistance Improvement of Stainless Steel Plate by Textured-DLC Coatings**  
M. Matsuo, T. Osawa, Y. Iwamoto, Y. Eyama, H. Yamamoto, S. Tanaka, M. Kikuchi, Y. Hirata, H. Akasaka, N. Ohtake (Tokyo Institute of Technology, Japan)

## PM-8 June 2021

- 8P-01 **Quantitative Investigation of the Interaction at the Interface of Protein and Polyglycerol-functionalized Nanodiamond Surface**  
Y. Zou, N. Komatsu (Kyoto University, Japan)
- 8P-02 **Guiding Nanodiamond Arrays Using Coassembly with Block Copolymers**  
B. Sutisna, S. D. Janssens, E. Fried (Okinawa Institute of Science and Technology Graduate University (OIST), Japan)
- 8P-03 **Surface Functionalization of Nanodiamond with Long Alkyl Chains to Be Well Dispersible in an Organic Solvent**  
W. Wang, Y. Zou, H.X. Wang, N. Komatsu (Xi'an Jiaotong University, China)
- 8P-04 **Unique Rheological Behavior of Detonation Nanodiamond Hydrosols: Nature of the Sol-Gel Transition**  
A. Y. Vul, N. M. Kuznetsov, S. I. Belousov, A. V. Bakirov, S. N. Chvalun, R. A. Kamyshinsky, A. A. Mikhutkin, A. L. Vasiliev, P. M. Tolstoy, A. S. Mazur, E. B. Yudina, E. D. Eidelman (Ioffe Institute, Russia)
- 8P-05 **Polyglycerol Grafting Shields Nanodiamond from Protein Corona Formation to Avoid Macrophage Uptake**  
Y. Zou, N. Komatsu (Kyoto University, Japan)
- 8P-06 **Synthesis and Characterization of Nanocrystalline Boron-doped Diamond Electrodes: Towards Anodic Oxidation of Organics in Wastewater**  
P. Ashcheulov, O. Hak, A. Taylor, M. Davydova, J. More-Chevalier, V. Mortet (Institute of Physics of the Czech Academy of Sciences, Czech Republic)
- 8P-07 **Over 59 mV/pH sensitivity with fluorocarbon thin film via fluorine termination for pH sensing using boron-doped diamond solution-gate field-effect transistors**  
Y.H. Chang, Y. Iyama, S. Kawaguchi, H. Kawarada (Waseda University, Japan)
- 8P-08 **Enhancement of the photoresponse of optically-driven nitrogen-doped ultrananocrystalline diamond electrodes for neural stimulation**  
S. Falahatdoost, A. Chambers, A. Stacey, S. Prawer, A. Ahnood (University of Melbourne, Australia)
- 8P-09 **Diamond photoelectrodes for VIS-NIR operation using laser write defects**  
H. N. Al Hashem, B. P. Cumming, A. Ahnood (RMIT University, Australia)
- 8P-10 **Enrichment of Fluorescent SiV Center in Silicon-doped Diamond by Post-treatment**  
M. Nishikawa, M. Liu, A. Tsurui, S. Nagamachi, N. Komatsu, M. Nakao (Daicel Corporation, JAPAN)
- 8P-11 **Effect of P1 concentration on NV centers created by electron beam irradiation**  
S. Ishii, S. Onoda, S. Saiki, Y. Masuyama, M. Miyakawa, T. Taniguchi, K. Watanabe, T. Teraji, Y. Kamitsubo, T. Sekiguchi, M. Hatano, J. Isoya, T. Ohshima (QST, Japan)
- 8P-12 **Activation of Sn-V Color Center in Diamond by High Pressure and High Temperature Treatment**  
R. Fukuta, Y. Murakami, T. Shinmei, H. Ohfuji, T. Irifune, F. Ishikawa (Ehime University, Japan)
- 8P-13 **Fabrication of NV centers-hosted diamond tip via FIB for scanning probe**  
K. Hayashi, R. Wang, K. Nakashita, Y. Kainuma, M. Ito, T. An (Japan Advanced Institute of Science and Technology, Japan)
- 8P-14 **CVD Growth Conditions Dependence of NV Center Creation for High Sensitivity Magnetometry**  
M. Haruyama, H. Kato, M. Ogura, Y. Kato, T. Makino, S. Yamasaki (National Institute of Advanced Industrial Science and Technology, Japan)
- 8P-15 **Fabrication of a scanning diamond NV center probe using laser processing**  
Y. Kainuma, R. Wang, K. Hayashi, K. Nakashita, M. Ito, T. An (JAIST, Japan)
- 8P-16 **Growth of diamond crystals containing P1 centers with controlled concentration**  
M. Miyakawa, T. Taniguchi (National Institute for Materials Science, Japan)

## PM-8 June 2021

- 8P-17 **Effect of pH on Optical Properties of Nitrogen-Vacancy Centers**  
M. J. Glowacki, M. Sawczak, A. Wcislo, M. Ficek, R. Bogdanowicz (Gdansk University of Technology, Poland)
- 8P-18 **Synthesis, Characterization and Applications of Diamond Particles with Nitrogen-Vacancy Defects**  
Y. L. Mindarava, R. Blinder, V. N. Agafonov, V. A. Davydov, C. Laube, W. Knolle, B. Abel, B. Naydenov, F. Jelezko (Institute for Quantum Optics, Ulm University, Germany)
- 8P-19 **Diamond Magnetometry for localized free radical measurements in single sperm cell**  
C. A. Reyes-San-Martin, T. Hamoh, Y. Zhang, R. Li, A. Sigaeva, J. Kawalko, A. Mzyk, R. Schirhagl (Groningen University, University Medical Center Groningen, The Netherlands)
- 8P-20 **Nanodiamond-silk hybrid: A multifunctional optical platform for biophotonics applications**  
A. Khalid, A. Mitropoulos, D. Bai, A. Jadhav, D. Linklater, D. Nguyen, A. Abraham, P. Reineck, D. Simpson, A. Vidanapathirana, S. Houshyar, Christina A. Bursill, Snjezana Tomljenovic-Hanic, Elena Ivanova, Brant Gibson (RMIT University, Australia)
- 8P-21 **Fabrication of 2D NV Ensemble and its Spin Property Improvement**  
K. Kanehisa, T. Tatsuishi, T. Sonoda, Y. Hata, T. Tani, S. Onoda, A. Stacey, J. Isoya, S. Kono, H. Kawarada, K. Kawakatsu (Waseda Univ., Japan)
- 8P-22 **Fluorescent microdiamond-doped optical fibres for remote magnetometry**  
D. Bai, M. H Huynh, D. A. Simpson, P. Reineck, A. D. Greentree, S. Foster, H. Ebdorff-Heidepriem, B. C. Gibson (School of Science, RMIT University, Australia)
- 8P-23 **Measurement of mitochondrial free radicals production by diamond magnetometry**  
L. Nie, A. C. Nusantara, V. G. Damle, R. Sharmin, S. R. Hemelaar, K. J. van der Laan, F. P. Perona Martinez, T. Vedelaar, M. Chipaux, R. Schirhagl (University of Groningen, University Medical Center Groningen, Netherlands)
- 8P-24 **Relationship between optical property and surface functionalities in various types of DLC films for biological response**  
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- 8P-25 **Enhanced electrochemical capacitance of nitrogen-doped ultrananocrystalline diamond through oxygen treatment**  
A. Chambers, S. Falahatdoost, A. Stacey, A. Nadarajah, H. Al Hashem, S. Prawer, A. Ahnood (University of Melbourne, Australia)
- 8P-26 **Exfoliation of Hexagonal Boron Nitride Nanosheet with Chlorin e6 and Application of the Composite to Cancer Photodynamic Therapy**  
H. Kang, N. Komatsu (Graduate School of Human and Environmental Studies, Kyoto University, JAPAN)
- 8P-27 **Fabrication of Fluorine-functionalized Polymer Materials by Photochemical Modification for Carbon Materials**  
T. Nakamura, T. Tsuchiya (National Institute of Advanced Industrial Science and Technology, Japan)
- 8P-28 **Quantum monitoring the metabolism of individual yeast mutant strain cells when aged, stressed or treated with antioxidant**  
A. C. Nusantara, A. Morita, F.P. P. Martinez, M. S. Chipaux, V. G. Damle, K.J. van der Laan, A. Sigaeva, T. Vedelaar, M. Chang, R. Schirhagl, T. Hamoh (Groningen University, University Medical Center Groningen, The Netherlands)
- 8P-29 **Reliable field emission characteristics of carbon nanotube paste emitter through sufficient Ni<sub>2</sub>Si layer formed by reducing size distribution of SiC aggregates**  
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- 8P-30 **A Line Shaped Field Emitter Fabricated Using Carbon Nanotube Yarn**  
K.N. Yun, J.W. Jeong, J.T. Kang, S. Park, J.W. Kim, S.J. Kim, S. Choi, E. Go, J.W. Lee, Y. Ahn, J.H. Yeon, S. Kim, Y.H. Song (Electronics and Telecommunications Research Institute (ETRI), Korea)
- 8P-31 **Preparation of high quality optical diamond films by DC arc Plasma Jet CVD Method**  
S. Shao, K. An, Y. Zheng, Y. Huang, L. Chen, J. Liu, C. Li (Institute for Advanced Materials and Technology, University of Science and Technology Beijing, China)